DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: April 17, 2018	**WEATHER:** Partly cloudy with few heavy showers, and light wind, high ~57 degrees F

Personnel and Visitors Onsite:
Research vessel Cayuse - (no oversight representative) AECOM: Mark Tauscher; Geosyntec: Luke Smith; Gravity Marine: John Schaefer, Peter Jenkins

Research vessel Tieton - CDM Smith: Julee Trump; AECOM: Nicky Moody; Geosyntec: Adam McGure; Gravity Marine: Mike Duffield, Maggie Mckeon

Planned Activity:

- Collect surface sediment samples at stratified random sample locations that were determined to be previously skipped or missed between river miles (RM) 4.5 and 6, and continuing upriver.

Activity Completed:
A tailgate safety meeting was led by AECOM. Topics included near misses/good catches (housekeeping and slips trips and falls), hand safety and communication with operators when moving the grab sampler. CDM Smith reminded the crews to watch for sheen on the river for cleanup when pulling and dropping samples, and to be sure to decontaminate reusable PPE when leaving the exclusion zone.

Morning and evening position checks on both vessels at PH-2 (Fred Devine Diving and Salvage piling).

Julee Trump performed oversight of surface sediment sampling at random stratified locations on the west side of on the Willamette River from 08:00 to 18:40 on board the Tieton. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- 3-point composite surface sediment samples were collected from four random stratified sampling locations between RM 4.5 and 7 West and center as summarized below. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.
- Three additional samples were attempted, but were unable to be collected as discussed below.
- Duplicate Sample was collected

Julee Trump received updates from the Gravity crew of the Cayuse at 18:40, as AECOM/Geosyntec had returned to the lab prior to Tieton docking time. The following work was completed:

- 3-point composite surface sediment samples were collected from 5 random stratified sampling locations between approximately RM 5.5 and 6 East as summarized below. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.

Status of Schedule & Priority Work:

- Random stratified sampling will continue through the week and into next week, progressing up the river.
- Locations on private property are being skipped until access agreements are obtained.
- Sample locations in areas of known/encountered heavy sheen contamination are planned to be skipped and returned to with support from NRC Environmental Services to contain sheen during sampling.
- Sampling is taking more time than initially projected.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):
Resolution to vessel position checks: Vessels will now perform position checks after crews are loaded on the boat both in the evening and morning. This was fully implemented today.

When attempting to sample at SG-B183, two unsuccessful grabs were made insufficient sediment recovered. There was a minor sheen to surface water reported after a second grab attempt. This is located at approximately RM 6.3, center of the river. https://maps.google.com?q=45.581512,-122.757496. The crew attempted to deploy spill BMPs (sorbent pads) but it dissipated before they deployed. The sheen was estimated to cover approximately 2 by 4-foot area when first observed. The crew notified NRC and OERS per the HASP and CDM Smith notified EPA via email. CDM Smith advised that all sheens in the river needs to be cleaned up and regulatory reporting done per the HASP and discussed planning for future incidents. AECOM/Geosyntec plan to skip highly contaminated areas producing sheen on the river until later in the project, and plan to bring on NRC Environmental Services to help them manage sheen release when sampling these areas.

Many failed power grabs (less than 20 cm recovery) occurred when the sampler had difficulty penetrating through dense sand layers. By moving to multiple locations with the 25 or 50-foot sample location, a bias towards sample matrices with more fines and less densely packed sediments.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
On the Tieton, stratified random surface sediment samples were collected at following locations between RM 4.4 and 6.9 on the West side and center of the channel (see figures below for location information):

- PDI-SG-B108-BL1 – Within 25 FT radius, silt over sandy silt, some organic and woody debris, tiny (<1cm) clam
- PDI-SG-B160-BL1 – Moved to 50 FT radius (cobbles and debris prevented recovery), sandy silt, welding stick, some organic and woody debris.
- PDI-SG-B168-BL1 – Within 25 FT radius, silt over sand, trace organics
- PDI-SG-B202-BL1 – Within 25 FT radius, silt over sand, many tiny clams, 3-4 cm clams
- PDI-SG-B202-BL1-D – Duplicate to PDI-SG-B202-BL1
- Sediment descriptions are simplified descriptions. AECOM/Geosyntec collected detailed descriptions.

The Tieton crew also attempted stratified random surface sediment samples at the following locations:

- PDI-SG-B161-BL1 – Primary 25 Ft radius was covered by a pier, 50 FT radius and Alternate 1 locations were full of large anthropogenic debris, woody debris, and rocks that prevented sampler closure. Alternate 2 was fully covered by multiple parked barges.
- PDI-SG-B183-BL1 – Discontinued for later sampling due to sheen in the river (see issues above).
- PSI-AF-B206 – Two aliquots discarded due to five failed attempts to complete the sample (Five previous attempts were made with less than 20 cm recovery before the initial aliquot was collected. A total of 12 grabs were made. Penetration was an issue due to sand layers in some locations and a underlaying clayey/dense silt layers in the other locations.

On the Cayuse, stratified random surface sediment samples were collected between approximately RM 5 and 6 on the East side of the channel.

- AECOM crew was not available for summary, but Gravity indicated at least two samples were taken at alternate locations.

Photographs of work were taken throughout the day on board the Tieton and provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None

Wastes Generated and How Handled:

- Decontamination water was containerized in a 5 gallon bucket with lid at the SG-B183 location due to sheen in the river during sampling. No other Heavy petroleum sheen was observed on the Tieton. Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing:
See discussion of sheen issue above.

Signature: Julee Trump **DATE** April 18, 2018

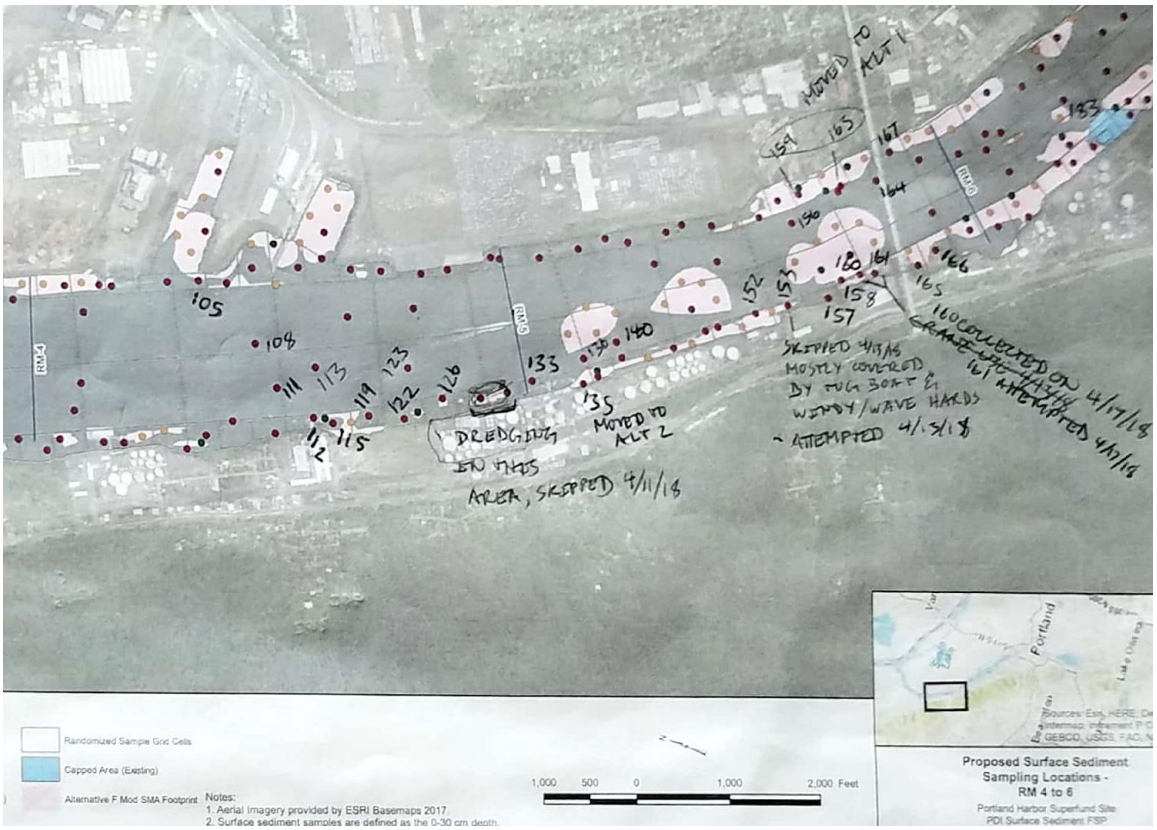

Figure 1: Field location notes

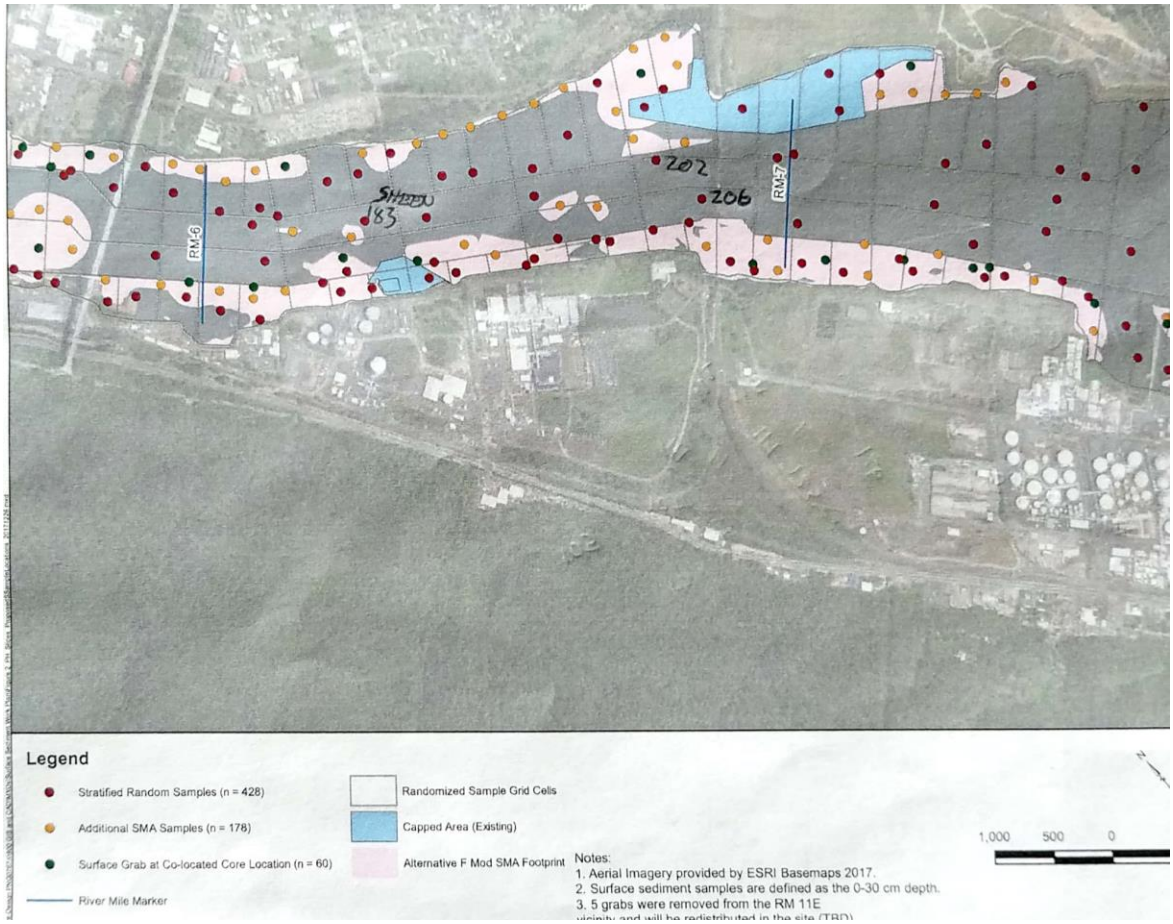

Figure 2: Field location notes